Host: Pavel Ibarra

What's up humans Welcome to a new episode of psychoactive today. We have round 2 with the biologist Ricardo Rangel, who has been the expert in DNA with this topic of mummies, or the dried bodies of Nazca. Welcome Mr. Rangel, how is it going?

Biologist: Ricardo Rangel

Very well, thank you very much. Very good afternoon, good evening. Good morning, when you are listening to us, thank you for the invitation and we are here very happy to be able to participate in your podcast to see this.

Host: Pavel Ibarra

There are a couple of things I want to ask before continuing with what I think he wants to tell us all. That it is new information specifically about the mummy María and it is about her genome. I don't understand it.

Biologist: Ricardo Rangel

Yes, basically about the genome and the metagenome.

Host: Pavel Ibarra

Okay, the questions have to do with a couple of things. First of all, they told us that the genomic difference exceeds what is allowed to be considered human. So, for example, there is a difference above 2% in María. Compared to humans, it can be said that this makes her another species different from us.

Biologist: Ricardo Rangel

That's right, I say, not only because of the genetic evidence that is being discovered but also evidently because of the morphological characteristics of these organisms. The fact of not only having found an organism but currently adding approximately 10 individuals with the same phenotypic characteristics, the physical characteristics that can be directly observed in the organisms. Well, what you are asking us is if these beings were definitely being established as a new species, from the data that we are finding. It seems that they were in the process of stabilizing as a new species under a process of hybridization and what we thought before or I myself thought was well, it could be artificial. But with this new evidence, they are clearly now giving us information that this was a natural process that took place in a scenario that we had not contemplated. But with the new Genetic evidence, now it seems we are already getting better Clarity of what María's origin was exactly.

Host: Pavel Ibarra

How curious because when speaking with Dr Piotti from Argentina, I already had two conversations with him and he told me that he thought that was what was happening, and that was, if there is a process of hybridization it would be a process of natural hybridization over many years by a mixture of different species. Can you explain a little bit about how they arrived? How did you come to that conclusion? More specifically, what happens, please.

Biologist: Ricardo Rangel

Yes, of course. What happens is that from the first point from the Analysis that was carried out on María's genome, combined with the very relevant and important conclusions of Dr Aina Hardy, we suddenly had a rather curious puzzle where a progenitor of the human branch was suddenly crossed with an individual from this region of Africa. Specifically, a chimpanzee or a bonobo, and suddenly it was transferred to America, where it was found. Possibly it was thought that it was transferred to the human being it was transferred to the chimpanzee. The hybridization experiment, it occurred in the area from Cusco in the Nazca area and this organism was generated or the organism had another route, no?

So what we are finding is that the organism actually had another route, a much more natural and more logical route, where these protagonists of this hybridization process could have been found naturally, and later the result of this hybridization, and the stabilization of this species that was perhaps found in Africa could have been transferred to America. No?

Host: Pavel Ibarra

What was it that made them understand that it comes from Africa? Was there some specific element that made them think of this.

Biologist: Ricardo Rangel

Yes, clearly, and for that I would like to be able to share the screen with you so that we can see a little more graphics and so that we can all understand each other in that aspect very. So basically, let's remember that we had already been working on the phylogenetic study, in a way, within what is going to be the new studies of the new mummies that have been finding, that at least now that we were in Peru, I was able to witness the existence of three other specimens. We must follow a protocol, not a protocol for the study of these organisms, and basically, I believe that this is one of the nine most important basic points in which we must work internationally, the establishment of a team of multidisciplinary experts.

- 1. Collection and preservation of samples
- 2. the establishment of a team of multidisciplinary experts.
- 3. The initial analysis of the sample.
- 4. The extraction and sequencing of DNA.
- 5. Compare them with concise databases.
- 6. The comparison based on known data protein analysis and of metabolites.
- 7. The study of the potential biological and cultural implications that these may have had in their environment.
- 8. Obviously, this must be published and must go through peer review.
- 9. And obviously, international collaboration with transparency of information must be stimulated.



All of the data that is accumulated in these issues is obviously not, well, we know and it is in the public domain because the moment in which María's sample was taken, which was evidently carried out under the techniques that could be had at that time, given the improvisation of the moment,



Host: Pavel Ibarra

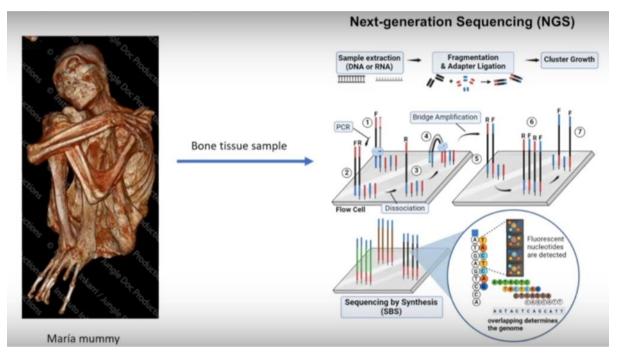
Can I ask, how many times has samples been taken from María?

Biologist: Ricardo Rangel

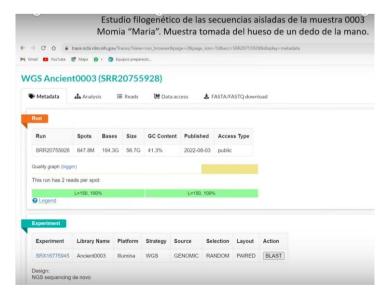
That I have knowledge of, those that were taken in 2017, at least the sample that we have studied, and that massive sequencing that has been carried out, is the one that was shown in this documentary that was in the media and that is available to all of you.

It was at this time that the sample of the hand bone was taken from where the DNA extraction took place and from where it was carried out, well, massive sequencing that is precisely in this at this specific moment, and it has only been once.

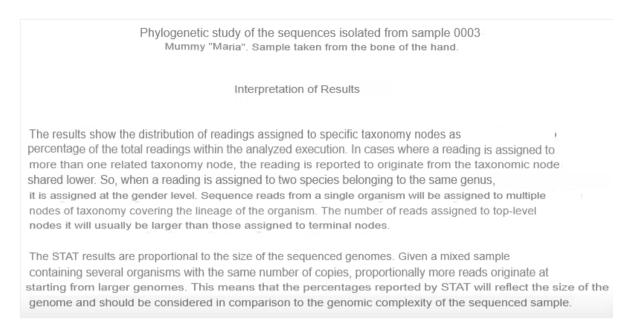
So, what you get, at least from the sample that we know, not that we have carried out the sequencing analysis in illuminated equipment under a massive sequencing technique. This is the most appropriate techniques to be able to carry out the analysis of old tissues and of tissues that have surely had a degradation process in terms of their structure. But that is very good because precisely this type of technology works with small fragments of DNA to be able to carry out this massive sequencing.



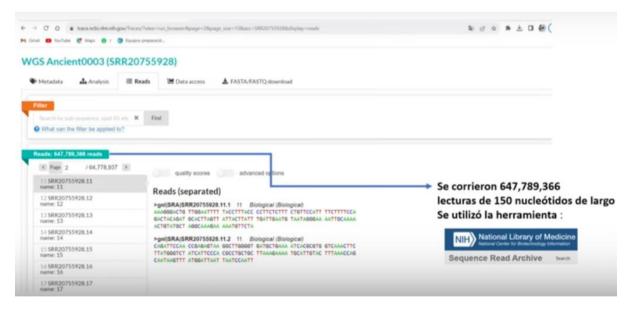
So, this technology makes it ideal to be able to carry out these types of studies in ancient mummies like María. Let's remember that this has already been uploaded to the NCBI databases, which is known Genetics.



The way in which this algorithm carries out the phylogenetic analysis of each of the reading sequences that it finds that it pairs and that it compares.



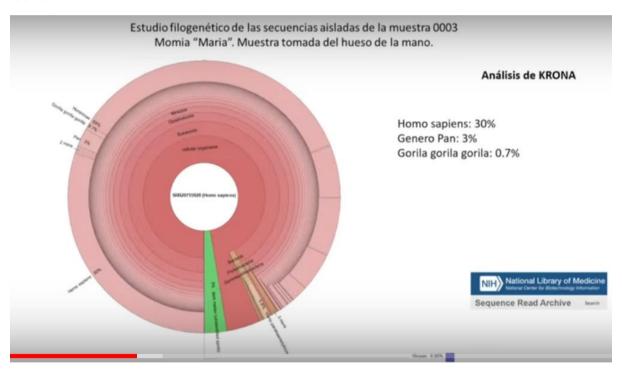
Well, with the Gene Bank, let us remember that an exorbitant number of readings, more than 600, were obtained. A million readings in the case of María.



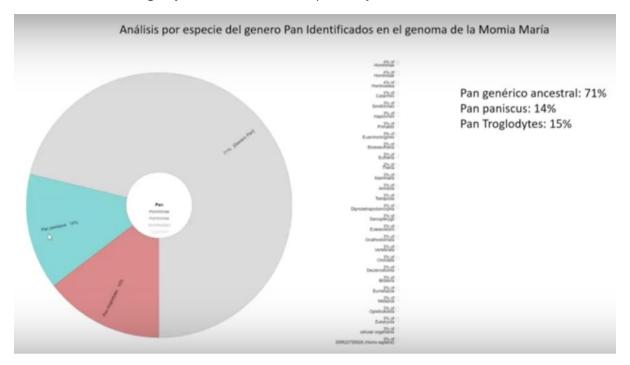
This has allowed us to carry out a fairly thorough and very detailed study with a DNA quality that is quite good to be able to trust the statistical analysis carried out by this program. Let us remember that we found an anomalous phylogenetic branch in the final part of the taxonomic description of this organism.



Well, when it is displayed to be able to observe in more detail the information that is being found.



We realized that there are so many genes that identify the species of two organisms that it is Pan Paniscus and Pan Troglodytes, 14% and 15% respectively.



That obviously put us in a situation in which we would have to ask ourselves several questions, and one of them was exactly what that anomalous branch present in the node meant at the end of the phylogenetic tree that identifies Homo Sapiens, specifically the Pan Genus.

From this first analysis, important questions arise about the phylogenetic analysis thrown by the analysis of the Reading Sequences when compared by the BLAST database and the KRONA's Analysis:

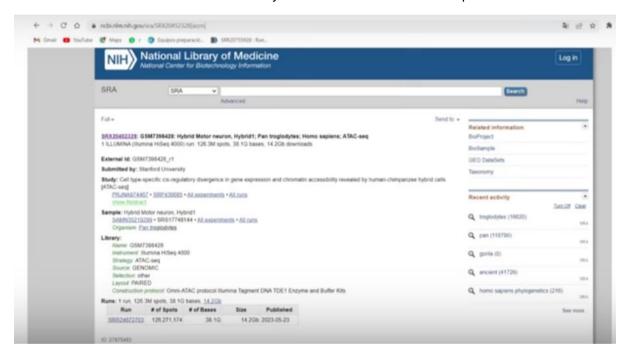
- 1.- What does it mean that anomalous branch present at the end node of the phylogenetic tree that does it identify Homo sapien?\$. (The branch of the Genus Pan)
- 2.- Why, in addition to identifying DNA sequences that correspond to the ancestral Pan genus (71%,), which is common with the apes that diverged from the human branch 7 million years ago, are also being identifying DNA sequences that identify 2 Moderna species (these were generated 1.5 million ago of years) to the Pan paniscus and the Pan troglodytes.?
- 3.- The only biologically conceivable option is that a contemporary hybridization process has been carried out.
- 4.- If this organism is a hybrid being, then the phylogenetic analysis enhanced in SRA and KRONA of known hybrid organisms, to analyze the phylogenetic trees that they throw out, and compare them With the phylogenetic tree that Mummy Maria is throwing out.

We wonder why, in addition to identifying DNA sequences that correspond to the ancestral pan genus, which is number 71, which is common in the Apes that originated from the human branch more than 7 million years ago.

We are also identifying DNA sequences that identify two modern species, and these were generated 1.5 million years ago. So, that's what there could be, the possibility that this organism could be generated by a hybridization process, in fact, I dare to say, and I can maintain it here live and face to face, to all the evolutionary scientific peers.

The only conceivable biological option is that a contemporary hybridization process has been carried out to generate this organism, of the fact that the existence of this genome in this organism specifically, and that it is also correlated with the physiological structures. The physics is not the comparison between these two organisms, well then since this information was found there, let's remember that we questioned whether there was the possibility that someone else had done it.

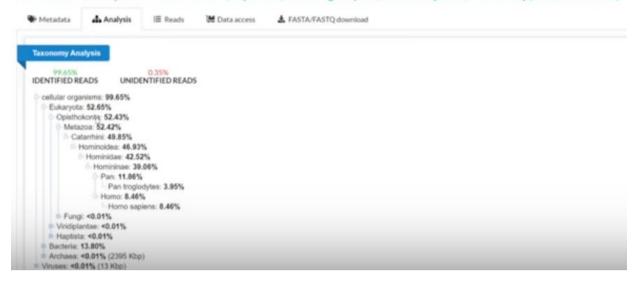
We did find an experiment of a hybrid cell. We did find several experiments where a group of American scientists-built motor neuron hybrid cells of human and chimpanzee cells.



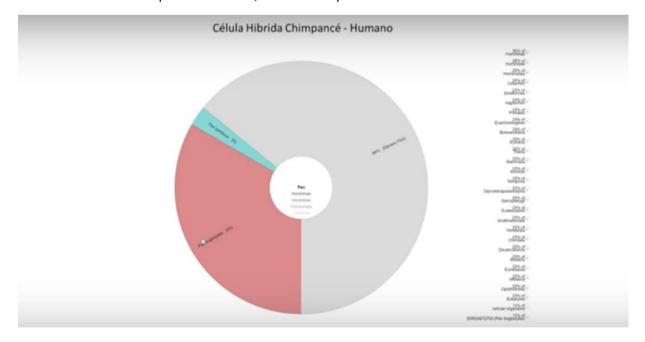
Later on, once they had achieved the fusion between these two hybrids cells, they extracted their DNA and also subjected it to the analysis of the reading sequence and Chroma Files and obviously found that the algorithm was completely accommodating the reading sequences.

This gave them a harmonious phylogenetic arrangement in terms of the percentage of each of the readings. That corresponded to each taxonomic branch until reaching the end to identify the genomes of both Pan Troglodytes and homo sapiens, telling us clearly that these reading sequences were capable of being able to perfectly distinguish a hybridization process.

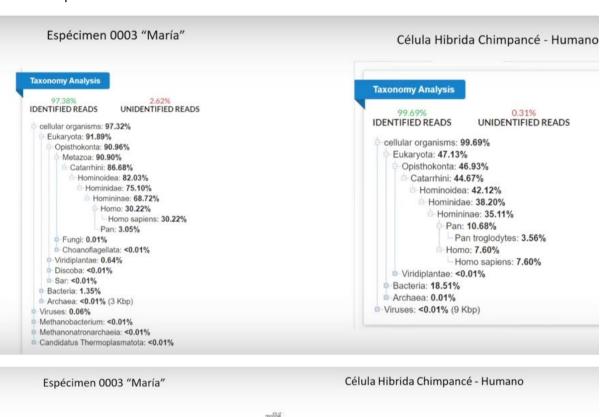
GSM7398429: Hybrid Motor neuron, Hybrid2; Pan troglodytes; Homo sapiens; ATAC-seq (SRR24672702)

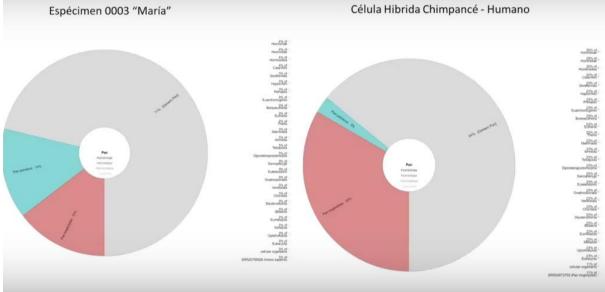


María here as the source organism was effectively a chimpanzee and not a bonobo because evidently, we had a higher percentage in this case 33 percent of the Pan Troglodytes genome when it was carried out because of its divergence and were generated. These two species are therefore expected to find this information and apart from 64 percent of the generic breed that is common with humans and chimpanzees, which was the inheritance that was given to us after the branch of homo sapiens was born, and of the Apes. So that is normal to find it.



Then we made these comparisons, and we saw that there was a very interesting analogy in how this situation obviously made us give the proposal of the possibility of this phylogenetic relationship.

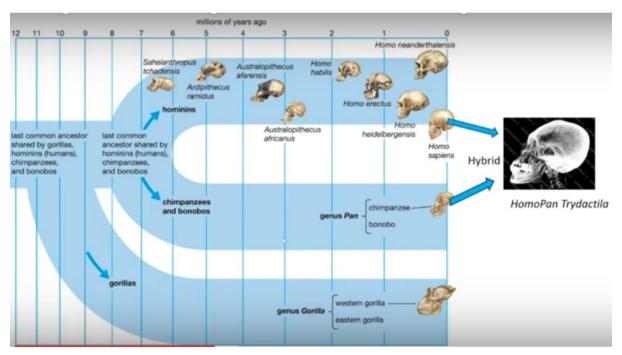




Around 7 million years ago, the branch of the hominids and that of the chimpanzees diverges but that given the information we had about the antiquity of Maria of 1700 years. This and the possibility that this had been a hybridization process that cannot happen naturally, due to the geographical distances that existed between the organisms. Well, we thought that this had happened recently so that is why here I put the origin of the little arrows, there almost at the end. Not because 1700 years in the chronological scope is nothing, but now with the new evidence that we are going to talk about, and I hope to capture your attention.

We are now able to say that perhaps This happened between 200 to 300,000 years ago yes, when it is estimated that the first human beings were generated and also because of the genetic characteristics of adaptation that these Tridactyl organisms already present. It must surely have taken them at least this long and why I say that is because in the generation of these organisms we should possibly have seen reminiscences of at least the thumb and the little finger and when we analyse the tomography scans of these tridactyl beings, we practically do not find the reminiscences of these two fingers as we can find for example in the Sloth, which is also a tridactyl organism.

We can see that there are some small reminiscences of these little fingers that are of more this origin that they have. This is a very similar ontological origin because they are also mammals, then what do I base it on now to be able to say that this happened.



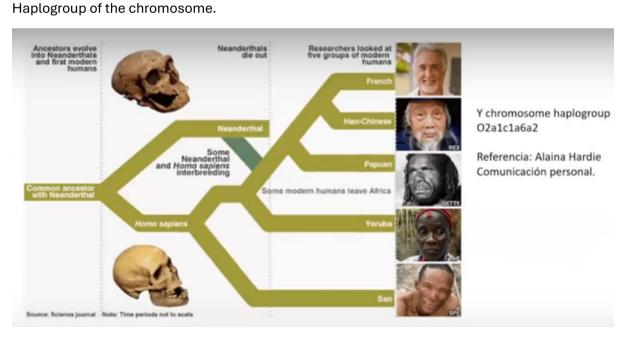
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Well, what we have now analysed of María's genome is the metagenome, and the metagenome is what has given us a very important new light. From María's information, here is this image in which I have proposed to be able to give the name to the new species of María. This remains the same and does not change the process of contemporary hybridization. Also, obviously because the same thing gives 1,700 years to 200 or 300,000 years. Also, chronologically speaking, we are talking about what has happened after very little time has passed since the generation of this new species.

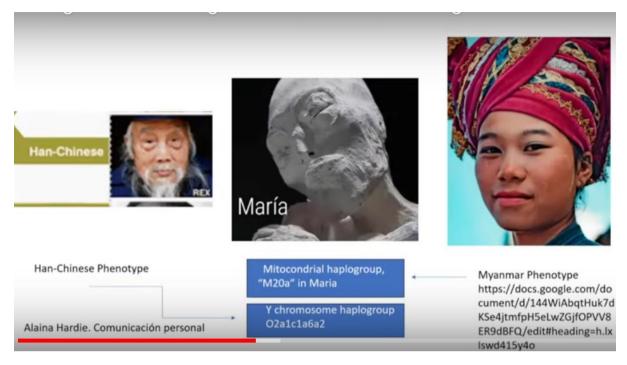


Possible convergence due to contemporary hybridization

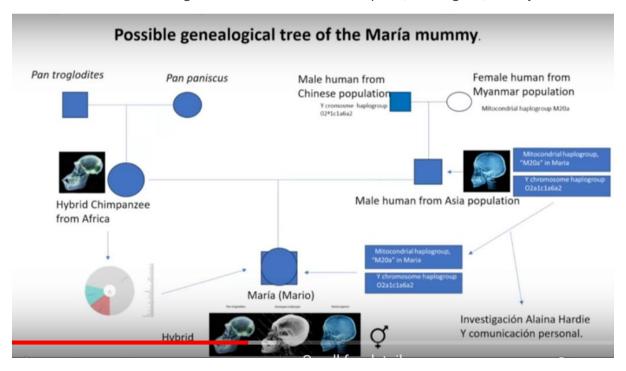
This is also very important information from Dr Alina Hardy which is fundamental. For the establishment of this theory that I am formulating both the mitochondrial DNA and the



We are already doing this task too, to be able to confirm the existence of this genetic information and this possible family tree.



This one that can also change a little in terms of its conception, once I get it, I'll let you know.



The information we have does not mean that we have studied now the metagenome. The metagenome means all the genetic information that is constituting a living being, obviously including the microbiota and all the parasites that it could have in it at the time the measurement is taken from a sample of this individual because we know now that the metagenome and basically the microbiota is a like a door to a new unknown world of information that we did not have, with respect to the microorganisms that coexist with a being, with a person, with a living being. In particular, practically all organisms contain a microbiota

they contain a microbiota in their mouth, on their skin. Practically in all of their skin, we have a specific microbiota, in the hair on the scalp, in the tear mucous membranes, in the nasal passages, in the intestinal microbiota as well. It is very important, and the parasites that could be infecting an organism at that moment. There are many intracellular parasites that are living in the blood, so all this is valuable information because it can give us key information about the health of the organism or her illness or even give us views of the cause of death of an organism this ancient.

Metagenomic Analysis of the Mummy Maria.

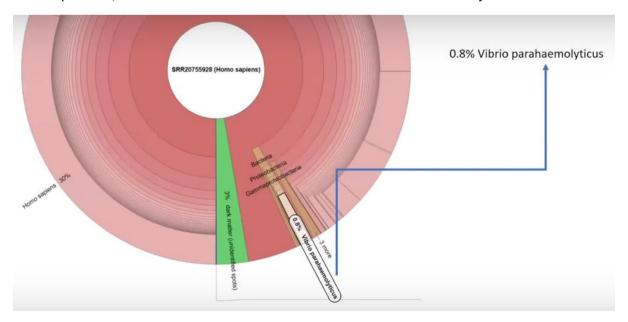
Next-Generation Sequencing has transformed the study of the metagenome by provide an unprecedented ability to sequence and analyze communities complex microbials. Its impact on biological research is profound, since not only improves our understanding of microbial biodiversity, but also opens up new opportunities to understand the existing interactions of these microorganisms 1700 years ago, with the tridactyl beings of Nazca, and the impact that these microorganisms could have generated in the health of these ancient organisms.

Host: Pavel Ibarra

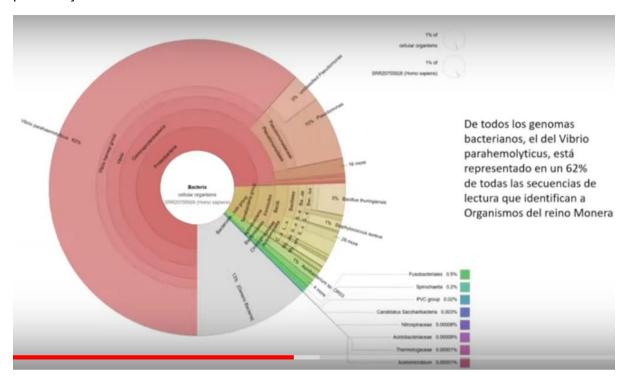
I wanted to ask you did you discover what was the cause of Maria's death?

Biologist: Ricardo Rangel

Yes, they already have it. We already have a possible cause of death and right here I will present it. This is the analysis of Croma that it gives us when we get directly to the base of the MCV and YYY, the attention that it finds from 1.8% of a parasite is very striking and powerful. In this case it is not a parasite, it is a bacterium that infected María that is called Haemolytic Vibrio.



When we display the information of the Bacteria it contained in Croma in the sequenced genome, just observe that 62 percent of all bacterial genomes are obviously monopolized by the presence of this Vibrio. Let's stop then and call powerful attention, as this makes us rule out the possibility that it was contamination.



Because if there was contamination at the time of manipulation, we would have a very small amount of information about this organism so that it could have been contaminated with a large number of copies of the DNA of this organism, by the person who manipulated it. Well, he would have had serious health problems, well, no. So, it is very difficult to assume that this high percentage was due to the fact that this organism was infected and not only that, but possibly there was bacterial sepsis, because in addition It was in the bone. So, in other words, the idea of it having reached the bone has precisely allowed us to be able to rule out the greater possibility that it could be contaminated with DNA that was on the surface, and that any other person could have gotten it there by carelessness.

Then there is a great possibility, and this is obviously for the scientific peers who are listening to this interview. When they begin to analyse this part of María's metagenome, you will be able to corroborate it or also obviously let's remember that this has to do with an interpretation, and this interpretation is the one that we try to make as scientifically possible. Not in this case, well, when we realize that Vibrio Parahaemolyticus is found in a large quantity, well, it catches our attention a lot and where it is found.

Well, it turns out that it is an organism that can only be acquired if you eat raw seafood, basically molluscs.

Vibrio parahaemolyticus is a human pathogen that is widely distributed in marine environments. This organism is frequently isolated of a variety of raw seafood products, particularly seafood. The consumption of raw or undercooked seafood contaminated with V. parahaemolyticus can lead to the development of acute gastroenteritis characterized by diarrhea, headache, vomiting, nausea and cramps abs. It has also been isolated from wound infection and septicemia.

So, this leads us to, well, it has been reported in the scientific literature. How is it that this organism can cause multi-organ dysfunction, including sepsis? Due to the infection of this bacteria? So, this leads us to assume a scenario, a possible scenario of the infection of the mummy María, when she was in the Nazca desert. Let us remember that both the latest reports from the University of Ica and from the same Dr Piotti and of many others who have determined and who have seen how it is that this organism, in the case of María, naturally does not present teeth.



pain, nausea, vomiting, and fever. Although uncommon, V. parahaemolyticus has also been associated with wound infection and septic shock. These two manifestations have not been well-reported in medical literature, yet may yield a high risk of death, thus requiring emergent interventions. We present a case of a 42-year-old patient who developed septic shock secondary to a bullous necrotic wound and diarrhea due to V. parahaemolyticus. Multi-organ dysfunction syndrome with extreme cardiac injury developed very early in the course of the disease, prompting ICU admission and management with antibiotics, fluid resuscitation, vasopressors, blood purification, and surgical debridement. The treatment achieved a good clinical outcome.

So, this leads us to assume a scenario, a possible scenario of the infection of the mummy María, when she was in the Nazca desert. Let us remember that both the latest reports from the University of Ica and from the same Dr Piotti and of many others who have determined and who have seen how it is that this organism, in the case of María, naturally does not present teeth.

In the second public hearing it was said that this was because of the possibility some being may have carried out a tooth extraction, but by methodically analysing the structure of the jaw bone there is no trace of the existence of those molars. So, this tells us that naturally María was like that and obviously had a chewing commitment and therefore her diet must have been a soft diet because of Maria not having the possibility of being able to chew this. Also, for that reason, their incisors, the teeth up to the front also find themselves with greater wear. So, it is very likely that the natives of Nazca, for wanting to help in the nutrition of this organism, offered it raw Oysters that contained the Vibrio Parahaemolyticus and that this Vibrio generated a septic shock in María that was possibly the cause of María's death.

Host: Pavel Ibarra

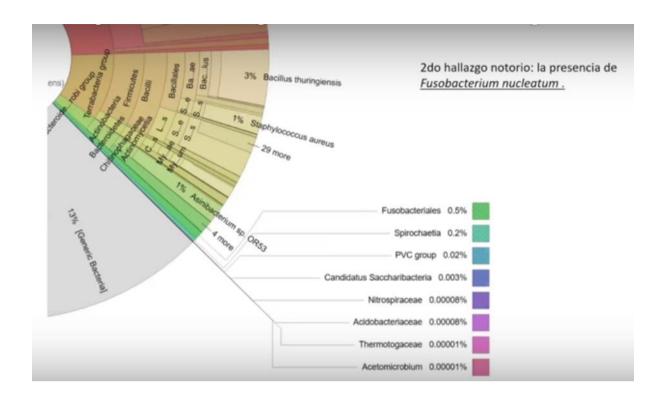
Then it was exactly like a death due to a poisoning infection.

Biologist: Ricardo Rangel

Due to some kind of poisoning or infection, no? So that's very likely.

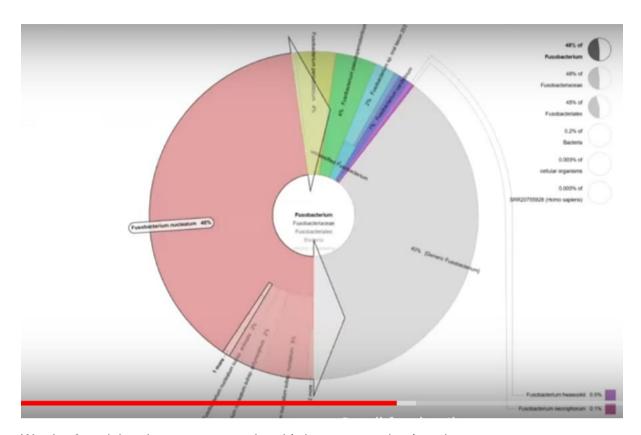


Well, it didn't happen, but it also followed our discovery. We found other opportunistic bacteria that surely during this process of septic shock were also activated and that surely generated a situation of commitment regarding what was going on so that the child comes out. Then all this obviously, well, he was formulating many other theories.



We also found other organisms in the case of Fusobacterium Nucleatum that could also have been the cause of a picture of pneumonia in María.





We also found that there are reports that this happens predominantly.



Pulmonary and thoracic infection by Fusobacterium nucleatum

Infección pulmonar y torácica por Fusobacterium nucleatum

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What do we know about the subject matter of this study?

What does this study contribute to what is already known?

We also found other bacteria such as Leptotrichia, that could also have been linked to the death of María due to an infection.



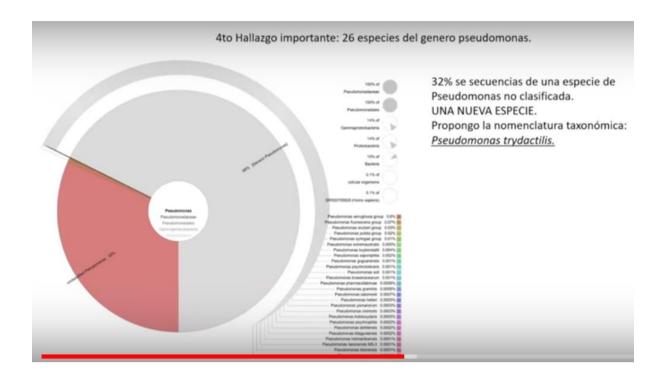
We found something else that is also important, the genome of an unclassified pseudomonas, that is, a new species of pseudomonas, we found 32 sequences of various subspecies of pseudomonas in María, but interestingly we found one that has not been described by science, so we propose that this pseudomona is precisely called a described tridactyl pseudomona because it is a completely different genome, it is a new species of pseudomona, it is a pseudomona that is not completely terrestrial from here, this and a new species that had not been described and that evidently Maria 1700 years ago also found it & possessed.

Host: Pavel Ibarra

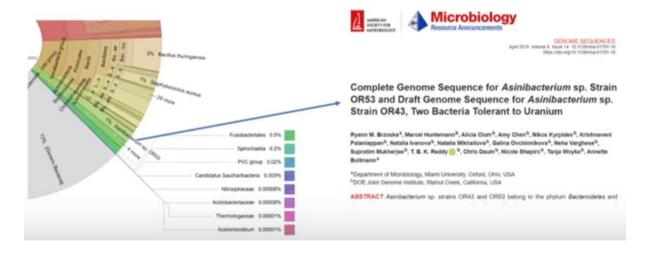
So, from here it can be said that this is where Tritia comes from or no?

Biologist: Ricardo Rangel

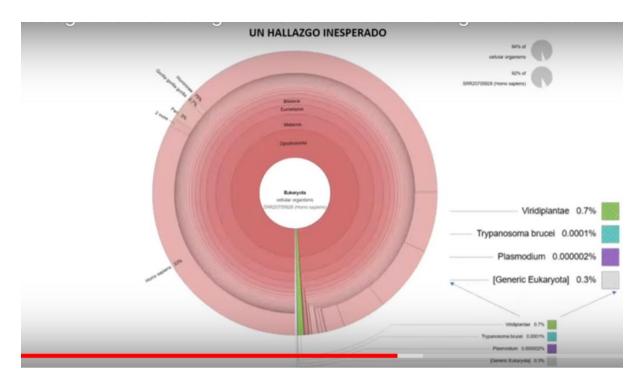
No! This is a bacterium because it was found in a tridactyl organism. I am proposing that the species of that pseudomonad be tridactyl and give a tribute to the organism from which this pseudomonad comes a new pseudomonad, a new species.



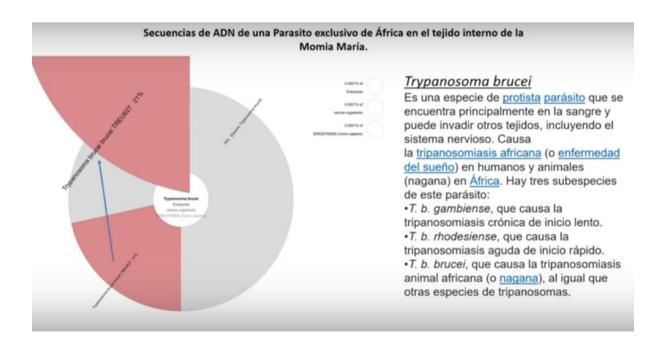
Another finding that is also very interesting is that we found a very specific strain of bacteria that is called Asinibacterium, the strain number OR53, which has a very important characteristic, which is that it grows in the presence of uranium radiation. That is also something very interesting. How strange that later we will also have to analyse why María has this type of bacteria in her body.



What fascinated us most about this unexpected discovery was that Mary is infected with two Aryan protos, and one of them is Trypanosome Brucei. Trypanosome Brucei is an organism that only exists in Africa, and it is only transferred through the bite of a fly, in this case the ZC Fly. Then the ZC Fly has a very limited distribution, and the plasmodium is also an organism that also has distributions even though it is also found in America, it is not exactly found in the Nazca region. There is no plasmodium, there is no malaria, yes.



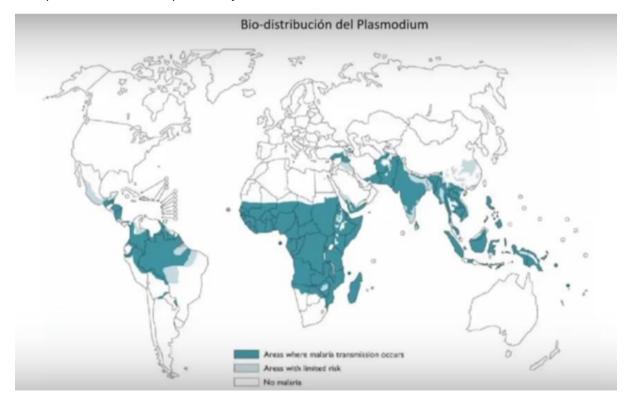
And then, here you'll see the Trypanosome Brucei was found in the subvariety, in the subspecies Brucei. So, it is a very specific sequence. There exists, three types of trypanosomes, the two that infect humans and there is another one in this case, which is the Brucei that only infects animals, so that also tells us a lot about the fact that this organism shares a very important genetic branch with the Bonobo's and with the Chimpanzees, who have been more susceptible to being infected with a Trypanosome that only exists in Africa and that only infects animals and not humans. So, this is a very interesting finding that now presents us with a new scenario for the existence of María.



Well then, here it is the distribution of Trypanosome Brucei, practically in the centre of Africa in the north it is not in the south.



We can see where the plasmodium is found. The plasmodium is also in Africa, it is in Asia but in the specific case of Peru practically not.



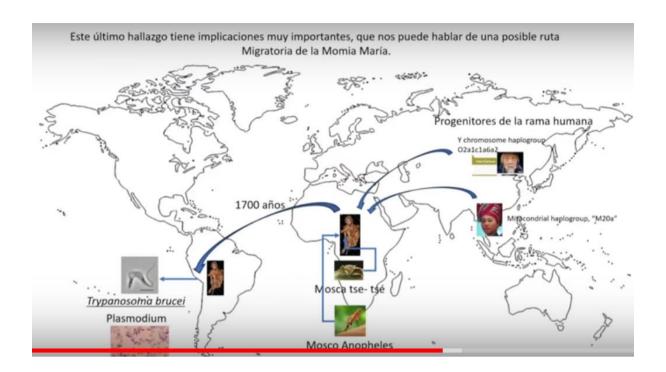
There are infections in the Nazca Desert area. There are practically no confirmed cases of plasmodium infections in that area,



So, all of these two aspects together create the possibility of generating another scenario and this one, on the route of migration, that they had on the one hand, Maria's ancestors Where did Maria originate and what we now have to resolve now is how Maria was later transferred to America.

So, when we saw the phenotypic characteristics of Maria the Tridactyl, with those big fingers and the robustness of her body, well obviously there was a click. There was no agreement in the ecological Niche of a desert, but now that we found this data and we reviewed again the physiological and physical characteristics of María, then when we found this data of the existence of Trypanosome Brucei in it, well now if we move it to a jungle environment, now it makes a much more logical click for us, and the fact that it has genomes from Asia makes it much more feasible. Well, the fact that this hybridization of humans from 200 to 300,000 years ago could be carried out in an African environment, with African organisms and a new species has been generated through a process of contemporary evolution. So, this is basically the new information that we have that I believe is very valuable, for all those who are carrying out research about the Tridactyl Mummies, the context it could have and the explanation for them.

Now, obviously we still have a serious problem of being able to explain a migratory route 1700 years ago of María, not towards the American continent and because I have this information, I gave myself the task of being able to investigate what other evidence there was around María.



Joyce mantilla told me that in the context of the discovery of these mummies, they had found some stones with engravings and these engravings I have also been analysing right now.

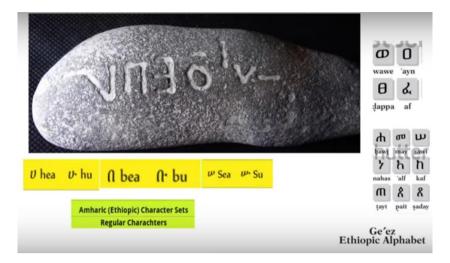
We have done a little comparison of some of these signs. This is one of these symbols. So now in the African context, what I asked myself was, if there could be a new situation where maybe these stones have travelled with them 1700 years ago so we could have this situation. Here we have found a very interesting match or concordance with the Ethiopian Americo. This is just one of some of the of the letters that are inscribed on these stones. Then I said, well maybe this one, if they come from Africa, I started to review the ancient civilizations of Africa and their writing, and this is what I found.



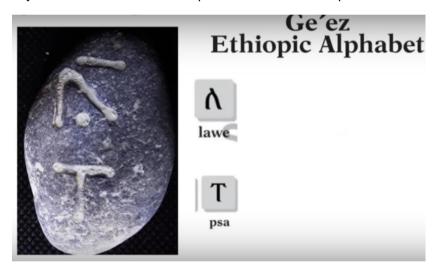
There are no symbols that are very similar to the Ethiopian Ge'ez of the alphabet.



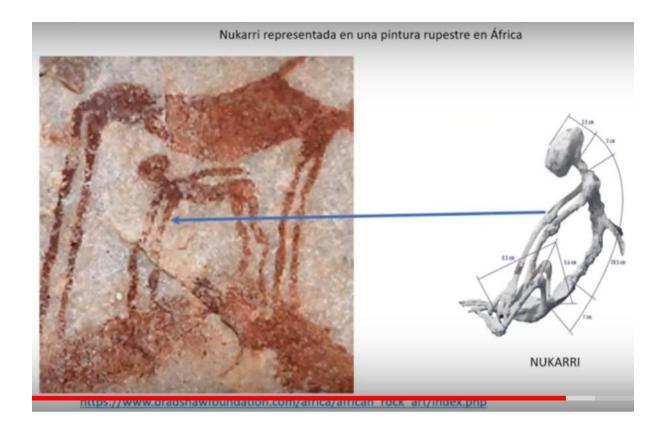
This is also an ancient African language and here we can see some symbols very similar to the American one.



And here also very clear because two letters present from the Ethiopian Ge'ez.



But the most interesting thing Pabel is that I started to review the cave paintings in this area of Africa, and I found a very interesting parallelism in the nape of this insectoid-type organism, that was also found in the same context of these tridactyl beings. We see a cave painting where there is practically a similarity to Barbara, with respect to what was also found in the context of the mummies like María. That is where this nape was found also in this painting here which is the source of where I got this information, I'm going to pass it on to you right now so that you can also share it and put it in the description of the video please. This one as well so that everyone can consult it and be able to observe it very well, I know I don't remember exactly in what locality, but it is precisely an area in Africa where these cave paintings of those very strange organisms were made. This is one, but the entire mural is full of some truly strange things, there is a match with the currently known living organisms, that not until now were discovered in Nazca and these very strange insectoid-type beings that also accompanied these mummies, no,



Well, everyone is talking about if it is possibly the origin of Maria, and those like her are merely 100% Africans, and that they have subsequently been transferred. Let's remember that there is more and more evidence of a cultural and economic exchange between Europe and America in pre-Hispanic times. Dra Ruth Rodríguez Sotomayor, I don't know if you have heard it and know a little of her work, but she has found a lot of archaeological evidence of the existence of this transfer of information so it would not be very risky at this moment.

Well, imagine Maybe a scenario in which these organisms have been captured, this whole family that I just now mentioned. I have also found that in the beings who are like María who already number around 10, at least between five and six of them have a condition in their chest, this malformation is known as Pectus Excavatum. Well, it is a depression in the chest Well, due to a deformation of the sternum and ribs, several of these tridactyl organisms have this deformation.



So that to me speaks to me of a high incidence of something that in the case of humans, for example, we have proof that it happens to us very sporadically, that is, 1 per every 5 million people, it is very infrequent. Well, it happens. So, the fact that in such a small population, we are finding this deformation with a high frequency makes me suppose that possibly this population of organisms, at the time they were discovered, it was already presenting a high rate of inbreeding.

So, when there is a high rate of inbreeding, it is expected that this type of malformations will occur in a high percentage of live births.

Host: Pavel Ibarra

And nothing more for the audience, can you explain Endogamy, please?

Biologist: Ricardo Rangel

Well, yes, I can explain what endogamy is. Endogamy is a process that occurs when a population becomes isolated in some way. Well, obviously there can no longer be interbreeding due to other populations because there is simply a geographical barrier that prevents me from having a genetic exchange at a sexual level to generate variability. So, when this process exists where for some reason this species was isolated in a specific area they began to reproduce between siblings, between cousins, between parents and children, even. Then this allows recessive genes to express themselves and generate mutations that generate this type of situation.

Host: Pavel Ibarra

This kind of Psyche catches my attention a lot and I'm going to tell you why. It is because last week I had an explorer who lived for a decade in Peru called Timothy Alberino and we talked about him going down to some pyramids and by using a special radar to see many meters below, he came across a couple of tunnels where tractor trucks could fit. He was telling me that he is very interested in this case because it is right there in the area where they discovered the bodies. But we don't know exactly, he knows very little people there.

But what we do know is that here they told me on the channel, Mr. Thierry Jamin told me that the mummies were found in tunnels, not in a cave, and what catches my attention is what he tells me about inbreeding because this is possible. It is indicative that either this species has grown either on an island or in an underground place where they cannot leave, it really is not and this supports a hypothesis by Dr Michael Masters who last year published a scientific article on Cryptoterrestrials,

Biologist: Ricardo Rangel

Yes!

Host: Pavel Ibarra

Then, it is, I think that's where they ain towards. We are not more or less going towards that side of the hypothesis. Not necessarily that they are terrestrial because there is no type of evidence so far other than probably cave paintings or things like that that they have come from another planet.

Biologist: Ricardo Rangel

But yes, well obviously the extraterrestrial hypothesis, we cannot consider it completely lost, but I believe that within the scientific field, obviously this is a puzzle, and it is forensic engineering practically that must be done with the information of these organisms. So that It's just where we must go scrutinizing in more depth, not just María's Gnome but obviously all of the other Gnomes of the beings that are like her, in order to establish relationships between them and also to be able to determine their origin.

Imagine that in two or three other specimens that are like María, we might find the same traits of the Haplogroups, of mitochondrial DNA, of the chromosomes, of the presence also possibly of a Chronic infection. I was also missing this Trypanosome Brucei which most likely did not cause her death. But yes, a Chronic Infection and that is known, many organisms can live Chronically with this organism and not die, then in the last study that was carried out by the Ministry of Culture of Peru, I don't know if you remember. Do you remember a little bit of what that their comment as? But, within the findings they comment on the famous lines of Harris in the bones and these lines of Harris are witnesses of the existence of one of one of an infection in this organism because then this perfectly matches the discovery of trypanosome Brucei of the plasmodium with these Harris Lines that we are seeing in Maria's bones with precisely a possible Chronic Inflection that this organism had.



Example of Harris Lines in Humans

Host: Pavel Ibarra

Doctor Piotti is going to like this. No?

Biologist: Ricardo Rangel

Yes! Yes! Yes! I hope Dr. Piotti will also be able to compare this one and I don't know if at least the x-rays made by the Ministry of Culture are already in the public domain. But at least the ones we have from the INCARI Institute are also public, so being able to verify the existence of these findings is going to be very interesting.

Host: Pavel Ibarra

With the new information that he just gave me, this does locate the problem that is coming, not because of what it is revealing to me because there is a certain percentage of the people who are following this case who are advocating, even fighting with other people because of the extraterrestrial hypothesis. This one, I know that you have already told me, that it cannot be completely ruled out yet. But the fact that you say that Maria comes from Africa and that she is totally terrestrial does not necessarily mean that Ah Well, this is a Tridactyl. How are you going to explain it? How do you explain it really well?

Biologist: Ricardo Rangel

That is precisely what we are going to analyse, is the Chyridium?? which is precisely the extremity of the pelvic girdle and the scapular girdle. This is a plan of the terrestrial chordates very well determined and studied at a phylogenetic level, this ontological and this evolutionary, so even genetically we already know which genes are playing an important part in the modifications of these extremities. There is a monodactyl, for example in horses, there is a Tridactyl in frogs, in reptiles, in mammals, like in the Sloth.

But now in the case of the mummy, Maria, well, there is also a tridactyl. Yes! Well then, from that point of view, now we must analyse the genes involved in this type of modification of the structure and also now we are going to do a three-dimensional analysis with experts in ergonomics to determine precisely the feasibility that María really belongs to a Niche arboreal to a jungle niche, to an African niche. Well, because they also have bearings in their fingers that are completely compatible with grasping the branches or trees to climb as they do too in a very similar way to the sloth wo is obviously lazy, he uses clubs in that case, the mummy uses the entire finger but there are congruent adaptations in his hand for this type of activity.

So, this is opening up a very interesting branch where ergonomics experts are going to be able to help us establish this compatibility of structure and function in a specific ecological niche, so that's what we're going to be working on in these months, nearby.

Host: Pavel Ibarra

You have the face of a small, excited child, Mr. Rangel.

Biologist: Ricardo Rangel

The truth is that I am very excited about this one, but well, good deal. Well, don't let my emotions go beyond that, since seriousness is a small thing, and in some other way, well, for me it was very important to be able to have this talk so that the community and in general that is following this case well, this has the latest information and also well those with the knowledge of bioinformatics well can uh verify this information with the reading sequences that are already public in the NCBI of the United States.

Based on that, well, we can continue generating new hypotheses because we remember that at the end of the day, we are in a learning process, we are in a process where we are treading on completely unknown terrain and that evidently, well we have to add and obviously we have to listen. We must and it is an obligation that we must listen to all of the opinions and all the possibilities in order to find the truth.

Host: Pavel Ibarra

So, it can be said in conclusion that what has just been found is now more aligned with what both Alina Hardy and Dr Piotti. They were also thinking about all of this, not completely obviously.

Biologist: Ricardo Rangel

There are other things, other situations that we must explain such as the metal implants in these mummies, that many of them are practically attached to the body and that they even grew around theirs because then it is still a mystery. In the case of these mummies, it still is. We must look for all the first possible rational options to give an explanation before moving on to the possibility of extraterrestrial theories. Manipulation through these NHI. Obviously, well if you ask me, he is a non-human so obviously it is a non-human, these tridactyl beings are not human!

They belong to a species very closely related to Homo Sapiens, but they are definitely not human. They are a different species, and they have to have.

Host: Pavel Ibarra

But from here!

Biologist: Ricardo Rangel

Then we have to say that its possible for a completely terrestrial origin under a contemporary but completely feasible hybridization process that has been carried out, in an ecological niche in the context of the African continent.

Host: Pavel Ibarra

Very well! Thank you very much Mr. Rangel anything else you want to add. And wherever you want to look for it tell someone where you can find it, so that you can say.

Biologist: Ricardo Rangel

Yes, with pleasure. Well, people who are interested in establishing communication with me can do so at an email that is exosome71@gmail.com

Host: Pavel Ibarra

Thank you very much for that concept. Thank you very much for choosing psychoactive for this. I thank you very much, man.

Biologist: Ricardo Rangel

Many thanks to you, Pabel. I am very pleased that your channel is growing, and I am pleased because the tone of the seriousness with which you are dealing with the topic. Congratulations,

Host: Pavel Ibarra

We do what we can! Thank you very much for the compliment. People, you already know. Subscribe to the Channel, like all of that, you already know. Thank you very much. To the Biologist Ricardo Rangel, see you next time. I hope we return to chat soon.

Biologist: Ricardo Rangel

Of course I'll be happy to do it Greetings Bye!